WO 2004/094069 PCT/US2004/003323

Having described the invention, I claim:

1. An airless spray nozzle tip having first and second major sides;

a first groove on said first major side of said tip; and

a second groove and a third groove and a fourth groove on said second major side of said tip, said second and third and fourth grooves extending parallel to each other and perpendicular to said first groove;

each one of said second groove and said third groove and said fourth groove penetrating said first groove, thereby forming a first orifice and a second orifice and a third orifice in said nozzle tip.

- 2. A nozzle tip as set forth in claim 1 wherein said first major side of said nozzle tip is a pressurized side or back side of the nozzle tip, and said second major side is an unpressurized side of said nozzle tip.
- 3. A nozzle tip as set forth in claim 1 wherein said first groove is a wedge-shaped groove.
- 4. A nozzle tip as set forth in claim 1 wherein the flow rate through said nozzle, of water at a pressure of 500 psi, is in the range of from about 0.01 gallons per minute to about 0.045 gallons per minute.
- 5. A nozzle tip as set forth in claim 1 wherein said nozzle produces a generally circular pattern with a diameter of at least about one half inch, at a distance in the range of from about one inch to about three inches from the nozzle tip, and at a flow rate below about 0.045 gallons per minute.
- 6. A process of coating a workpiece with liquid sprayed from a nozzle, said process including the steps of:

directing the liquid at the workpiece through a nozzle tip in the nozzle; and producing a generally circular pattern with a diameter above about one half inch, at a distance in the range of from about one inch to about three inches from the nozzle tip, and at a flow rate below about 0.045 gallons per minute.

WO 2004/094069 PCT/US2004/003323

7. A process as set forth in claim 6 wherein said directing step comprises directing the liquid through three orifices in the nozzle tip.

- 8. A process as set forth in claim 6 wherein said directing step comprises directing the liquid through three orifices that are collinear and that are formed by penetrating a first groove on a first side of the nozzle tip with three grooves on a second side of the nozzle tip.
- 9. A process as set forth in claim 8 wherein the first side of the nozzle tip is a pressurized side or back side of the nozzle tip, and the second side of the nozzle tip is an unpressurized side of the nozzle tip.
- 10. A process as set forth in claim 9 wherein the first groove is a wedge-shaped groove through which the liquid is directed into the three orifices.
- 11. A process as set forth in claim 6 wherein the flow rate is in the range of from about 0.01 gallons per minute to about 0.045 gallons per minute.
- 12. A process of coating a portion of a container with liquid sprayed from a nozzle, said process including the steps of:

directing the liquid at the container through a nozzle tip in the nozzle; and producing a generally circular pattern with a diameter above about one half inch, at a distance in the range of from about one inch to about three inches from the nozzle tip, and at a flow rate below about 0.045 gallons per minute.

- 13. A process as set forth in claim 12 wherein said directing step comprises directing the liquid at a pull tab portion of the container.
- 14. A process as set forth in claim 13 wherein said directing step comprises directing the liquid at a rivet of the pull tab portion of the container.
 - 15. An airless spray nozzle tip for spraying liquid at a workpiece; said nozzle tip having first and second sides; said nozzle tip having a plurality of orifices extending bet

said nozzle tip having a plurality of orifices extending between said first and second sides for spraying the liquid at the workpiece;

WO 2004/094069 PCT/US2004/003323

said nozzle producing a generally circular spray pattern with a diameter of at least about one half inch, at a distance in the range of from about one inch to about three inches from the nozzle tip, and at a flow rate at or below about 0.045 gallons per minute.

16. A nozzle tip as set forth in claim 15 wherein said nozzle tip has three and only three orifices.